

**COLORADO RIVER RECOVERY PROGRAM
FY-2002-2003 PROPOSED SCOPE OF WORK**

Project #: C-4b
Redlands Fish Passage O & M

Lead Agency: Fish and Wildlife Service
Colorado River Fishery Project

Submitted by: Frank K. Pfeifer (Project Leader)
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Date: September 14, 2001 (revised 10/10/01 by Pat Nelson)

Category:

- ☒ Ongoing project
- ☐ Ongoing-revised project
- ☐ Requested new project
- ☐ Unsolicited proposal

Expected Funding Source:

- ☐ Annual funds
- ☐ Capital funds
- ☐ Other (explain)
- ☒ O&M

I. Title of Proposal: Annual Operation and Maintenance of the Fish Passage Structure at the Redlands Diversion Dam on the Gunnison River

II. Relationship to RIPRAP: Colorado River Action Plan: Gunnison River: II.B.1.c. Operate and maintain fish ladder [at the Redlands Dam].

III. Study Background/Rationale and Hypotheses:

The Redlands Dam fish passageway, constructed on the Gunnison River, a major tributary of the Colorado River, near Grand Junction, Colorado, was completed in June 1996. The first of it's kind in the Upper Colorado River Basin, it's specific purpose was to provide upstream passage for two Federally listed fishes, the Colorado pikeminnow and razorback sucker. It was also designed for selective passage. That is, it was to preclude upstream movement of nonnative fish.

Since completion, 51 sub-adult and adult Colorado pikeminnow were found in the fish trap of the passageway. This included 43 individual pikeminnow, six single repeat passages, and one double repeat passage. Colorado pikeminnow used the passageway almost exclusively in August (35) and July (5). One pikeminnow was found in the trap in early-September. No razorback sucker have used the passageway to date.

Over 43,100 fish consisting of 22 different fish species and hybrids (6 native, 13 nonnative, and three catostomid hybrids) were collected and counted. Native fishes consistently comprised about 93% of the total fish catch for each of the five years.

A final draft report was prepared by 31 January 2001. This report evaluated the use of the fishway by all fishes, with particular reference to the native, listed fish, Colorado pikeminnow, from 1996-2000 (Burdick 2001). The comments and concerns received from three peer reviewers were included in the report and a revised version was submitted to members of the RIP Biology Committee on 12 April 2001 for their review. When the report is approved by the Biology Committee, it will be finalized for printing and distribution, which should be sometime in the summer of 2001.

IV. Study Goals, Objectives, End Product:

Continue to collect data on the number of large-bodied fish, different fish species, and seasonal distribution of fish that use the Redlands passageway. Summarize the annual results of passageway fish use in the annual RIP report.

V. Study area: Gunnison River: river mile 3.0 (Redlands Diversion Dam).

VI. Study Methods/Approach:

The fish passageway will be operated from 1 April through 15 September. The fish trap which is designed to collect large-bodied fish will be run at least every other day, Monday through Friday. All fish will be sorted by species and counted. Vital statistics including length, weight, and PIT-tag ID's will continued to be collected for all listed species found in the trap. On the weekend, the trap will be checked for listed fishes, only. All nonnative fish will be continued to be removed.

In addition to collecting and counting fish in the fish trap, FWS personnel will continue to be responsible for periodic cleaning of riverborne sediment in the fish trap and routine cleaning of surface and submerged trash, debris, and riverborne algae from the trash grates and bar screens in the forebay of the passageway. FWS personnel will also be responsible for opening and winterizing the passageway.

VII. Task Description and Schedule

Description

Task 1. Routine O & M of the fish ladder and fish trap which includes monitoring the fish trap, sorting, examining, and enumerating all fish in addition to removing sediment from the trap and cleaning trash and debris from the trash racks, bar screens, fish trap, and fishway entrance.

Task 2. Compile, computerize, and summarize fish use data; prepare annual RIP report.

Schedule

Task 1. 4/2002→ 9/2002; 4/2003→9/2003

Task 2. 10/2001→12/2001 (report on 2001 passageway results)
10/2002→12/2002 (report on 2002 passageway results)

VIII. FY-2002 Work

Deliverables/Due Dates: routine O & M of the fish passageway and fish trap: monitor fish trap; sort, examine, and enumerate all fish (4/1→ 9/30 2002); compile, computerize, and summarize fish use data; prepare and submit annual RIP report (12/1/2001).

Budget Estimate

Tasks

Labor

Fish Ladder O & M (daily for 6 months)	\$ 24,000
Prepare annual RIP report	

Total	\$ 24,000
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<u>Tasks 1& 2.</u>	<u>\$24,000</u>
Total	\$24,000

FY-2003 Work

Deliverables/Due Dates: routine O & M of the fish passageway and fish trap: monitor fish trap; sort, examine, and enumerate all fish (4/1→ 9/30 2003); compile, computerize, and summarize fish use data; prepare and submit annual RIP report (12/1/2002).

Budget Estimate

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Labor

Fish Ladder O & M (daily for 6 months)	\$ 24,000
Prepare annual RIP report	

Total	\$ 24,000
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<u>Tasks 1& 2.</u>	<u>\$24,000</u>
Total	\$24,000

IX. Budget Summary

	<u>Project Cost</u>
FY-2002 + 2003	<u>\$ 48,000</u>
Grand	
Total:	\$ 48,000

X. Reviewers: N/A

XI. References

Burdick, B. D. 2001. Five-year evaluation of fish passage at the Redlands Diversion Dam on the Gunnison River near Grand Junction, Colorado: 1996-2000. Recovery Program Project Number CAP-4b. Final report prepared for the Recovery Implementation Program for Endangered Fishes in the Upper Colorado River Basin. U. S. Fish and Wildlife Service, Grand Junction, Colorado. 57 pp. + appendices.

Prepared and compiled by: Bob D. Burdick, 20 April 2001
Appended by FKP/BDB, 14 September 2001
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